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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/090,896

03/04/2002

Seibang Oh

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6503

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05/24/2004

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EXAMINER

PATEL, TULSIDAS C

ART UNIT

PAPER NUMBER

2839

DATE MAILED: 05/24/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/090,896

Applicant(s)

OH, SEIBANG

Examiner

T. C. Patel

Art Unit

2839

AC

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 20 April 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-6, 8-27 and 30-64 is/are pending in the application.
- 4a) Of the above claim(s) 30-63 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-6 and 8-27 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 12/12/03
- ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: \_\_\_\_\_

## DETAILED ACTION

### *General Status*

1. This is a First Action on the Merits for RCE. Claims 1-6, 8-27 and 30-64 are pending in the case. Claims 1-6 and 8-27 are elected, as being drawn to Group I. Claims 30-64 are withdrawn as being drawn to Groups II-IV.

### *Election/Restrictions*

2. Restriction to one of the following inventions is required under 35 U.S.C. 121:
- I. Claims 1-6 and 8-27, drawn to a fuse block, classified in class 439, subclass 250.
  - II. Claims 30-45, drawn to a junction box, classified in class 439, subclass 76.2.
  - III. Claims 46-64, drawn to terminal, classified in class 439, subclass 884.
  - IV. Claims 57-64, drawn to method of providing fuse protection, classified in class 29, subclass 842.

The inventions are distinct, each from the other because of the following reasons:

3. Inventions II and I are related as combination and subcombination. Inventions in this relationship are distinct if it can be shown that (1) the combination as claimed does not require the particulars of the subcombination as claimed for patentability, and (2) that the subcombination has utility by itself or in other combinations (MPEP § 806.05(c)). In the instant case, the combination as claimed does not require the particulars of the subcombination as claimed because the subcombination does not require terminal with first, second, third and fourth integral portions. The subcombination has separate utility such as electrical box.

4. Inventions II and III are related as combination and subcombination. Inventions in this relationship are distinct if it can be shown that (1) the combination as claimed does not require the particulars of the subcombination as claimed for patentability, and (2) that the subcombination has utility by itself or in other combinations (MPEP § 806.05(c)). In the instant case, the combination as claimed does not require the particulars of the subcombination as claimed because the subcombination does not require a body. The subcombination has separate utility such as it can be used in any other terminal box.

5. Inventions I and IV are related as process of making and product made. The inventions are distinct if either or both of the following can be shown: (1) that the process as claimed can be used to make other and materially different product or (2) that the product as claimed can be made by another and materially different process (MPEP § 806.05(f)). In the instant case the method claims require steps of providing and causing, which are not required for the Group I, also, the terminal for method claims includes "providing a location on the plurality of terminals for receiving a terminal of a replacement fuse", which is not required for Group I

6. Because these inventions are distinct for the reasons given above and have acquired a separate status in the art as shown by their different classification, restriction for examination purposes as indicated is proper.

7. Because these inventions are distinct for the reasons given above and the search required for Group I is not required for Group II-IV, restriction for examination purposes as indicated is proper.

8. During a telephone conversation with Attorney Robert Connors on May 17, 2004 a provisional election was made with traverse to prosecute the invention of Group I, claims 1-6,

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8-27. Affirmation of this election must be made by applicant in replying to this Office action.

Claims 30-64 withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

***Drawings***

9. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(4) because reference character "70" has been used to designate both terminal (page 10, line 4) and arrangement (page 10, line 5). A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

***Claim Rejections - 35 USC § 112***

10. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

11. Claims 1-6 and 8-13 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 1, it is not clear what is meant by "a fuse element visible to a person viewing the body and terminals". Is fuse element connected to the terminals at the time of viewing? Is it the "body and terminals" as an assembly or the body and the terminals, individually. Also, it is assumed that the cover 104 of the invention is removed (cover is not disclosed as transparent.) Also, in claim 1, it is not clear what is meant by "to enable a single bus to supply

one of ... pairs". For claim 6, it is not clear how 'a substrate' recited in claim 2, is different from 'a body' recited in claim 1, line 3.

***Claim Rejections - 35 USC § 102***

12. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

13. Claims 1, 8, 9, 11-17 and 20-27 are rejected under 35 U.S.C. 102(e) as being anticipated by Kraus et al. (US 6,280,253).

For claims 1 and 14, Kraus et al. in figures 1-9, discloses a fuse block comprising a body 66, a plurality of terminals 164-168 (figure 9b), fixed to and exposed on at least one side of the body, a fuse element 170-172 visible to a person viewing the body and the terminals, the fuse element contacting two of the plurality of terminals and wherein at least three pairs of terminals are arranged in the body to enable a single terminal bus to supply (electricity) to one of the terminals of each of the pairs. For claim 8, the terminals are arranged in a row as seen in figure 9b. For claim 9, a plurality of fuse elements is shown. For claims 11, 12 and 15-17, the terminals of the bus are integral and formed on a strip. For claim 13, power supply is shown in figure 4.

For claims 20, 21, 23, 24 and 25, three rows of terminals are disclosed in figure 9b, two fuse elements are also shown. For claims 22 and 27, some of the terminals are staggered. For claim 26, power supply is shown in figure 4.

*Claim Rejections - 35 USC § 103*

14. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

15. Claims 2, 3, 10, 18 and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kraus et al. (US 6,280,253) in view of Williamson et al. (US 3,909,767).

As discussed above, Kraus et al. satisfies the limitations of claims 1, 8, 9, 11-17 and 20-27. For claim 2, fuse boxes are well known to be made from plastic material. For claim 3, Kraus et al. does not show the details of fuse elements, Williamson et al. discloses a fuse element made from punched metal with transparent fuse element housing. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide punched metal fuse element as taught by Williamson et al. in the fuse box of Kraus et al. so that fuse can be easily made and broken fuse can be seen. For claims 10, 18 and 19, rating of the fuse element depends on the load, and it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide different rating fuse for different load.

16. Claims 1, 4-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Galvagni et al. (US 5,569,880) in view of Shah (US 4,409,729).

Galvagni et al. in figures 1-5, discloses a fuse block comprising a body 10, a plurality of terminals 26, 27, fixed to and exposed on at least one side of the body, a fuse element 16 (see column 1, line 10) visible to a person viewing the body and the terminals, the fuse element contacting two of the plurality of terminals and wherein at least three pairs of terminals are arranged in the body (figure 4) > However, Galvagni et al. does not disclose a single terminal bus to supply the electricity to all the three, it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide a single bus to provide electricity one side terminals of the fuse elements, so that all are connected to the power supply. For claim 4, the fuse element is surface mounted.

For claim 5, Galvagni et al. does not disclose multiple strands for the fuse. Shah discloses a fuse with multiple strands. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide fuse with multiple strand for assembly of Galvagni et al. as taught by Shah, so that the fuse can have higher current rating.

For claim 6, the end caps of Galvagni et al. are taken as means for connecting the fuse element to the terminals.



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*Response to Arguments*

17. Applicant's arguments with respect to claims 1-6, 8-27 have been considered but are moot in view of the new ground(s) of rejection.

*Conclusion*

18. Any inquiry concerning this communication or earlier communications from the examiner should be directed to T. C. Patel whose telephone number is (571) 272-2098. The examiner can normally be reached on 6:30-4:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lynn Feild can be reached on (571) 271-2092. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



T. C. Patel  
Primary Examiner  
Art Unit 2839

Tcp  
May 18, 2007